

**Translation**

**PATENT COOPERATION TREATY**  
**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>904162</b>	FOR FURTHER ACTION	See Form PCT/IPEA/416
International application No. <b>PCT/JP2004/007798</b>	International filing date (day/month/year) <b>28.05.2004</b>	Priority date (day/month/year) <b>30.05.2003</b>
International Patent Classification (IPC) or national classification and IPC		
Applicant <b>SUMITOMO ELECTRIC INDUSTRIES, LTD.</b>		

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>5</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of <u>2</u> sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2004/007798

## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

This report is based on translations from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of:

- international search (Rule 12.3 and 23.1(b))
- publication of the international application (Rule 12.4)
- international preliminary examination (Rule 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

the international application as originally filed/furnished

the description:  
pages 1-14 as originally filed/furnished  
pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

the claims:  
nos. 2-7, 9-11 as originally filed/furnished  
nos.\* 1, 8 as amended (together with any statement) under Article 19  
nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

the drawings:  
sheets fig. 1-3 as originally filed/furnished  
sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3.  The amendments have resulted in the cancellation of:

- the description, pages \_\_\_\_\_
- the claims, nos. \_\_\_\_\_
- the drawings, sheets/figs \_\_\_\_\_
- the sequence listing (*specify*): \_\_\_\_\_
- any table(s) related to sequence listing (*specify*): \_\_\_\_\_

4.  This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- the description, pages \_\_\_\_\_
- the claims, nos. \_\_\_\_\_
- the drawings, sheets/figs \_\_\_\_\_
- the sequence listing (*specify*): \_\_\_\_\_
- any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.  
PCT/JP2004/007798

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	
<b>1. Statement</b>		
Novelty (N)	Claims <u>3, 5, 10, 11</u>	YES
	Claims <u>1, 2, 4, 6-9</u>	NO
Inventive step (IS)	Claims _____	YES
	Claims <u>1-11</u>	NO
Industrial applicability (IA)	Claims <u>1-11</u>	YES
	Claims _____	NO
<b>2. Citations and explanations (Rule 70.7)</b>		
Document 1: JP 2002-246219 A (Hitachi Powdered Metals Co., Ltd.), 30 August 2002		
Document 2: JP 6-236808 A (Kawasaki Steel Corp.), 23 August 1994		
Document 3: JP 2002-316369 A (Gunze Ltd.), 29 October 2002		
Document 4: WO 2002/080202 A1 (Sumitomo Electric Industries, Ltd.), 10 October 2002		
Document 5: JP 2001-223107 A (Kobe Steel, Ltd.), 17 August 2001		
Claims 1, 2, 4 and 6 to 9		
<p>Document 1 cited in the international search report discloses a dust core that is configured by mixing metal particles, which comprise a coating film layer that includes an oxide, with an organic compound, which comprises a combination of a thermoplastic polyimide and a non-thermoplastic polyimide, pressure molding the resulting mixture and then subjecting the resulting compact to a thermal stabilization treatment (claims and paragraph [0023]). Therein, document 1 also discloses the features of configuring so that the organic compound constitutes 0.15% by mass of the dust core; configuring</p>		

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

so that the non-thermoplastic polyimide constitutes no more than half of the organic compound or, in other words, no more than 0.075% by mass of the dust core; configuring so that the thermal stabilization treatment has a temperature of 150 to 320°C; and carrying out the heat treatment in an atmosphere of an inert gas under reduced pressure conditions.

Therefore, the inventions that are set forth in claims 1, 2, 4 and 6 to 9 lack novelty and do not involve an inventive step in the light of document 1.

## Claim 3

Document 2 cited in the international search report discloses the technical feature of adding zinc stearate to a combination of magnetic particles and a binder resin and then pressure molding the resulting mixture (paragraph [0025]).

Therefore, it would have been easy for a person skilled in the art to conceive of employing the technical feature that is disclosed in document 2 in the invention that is disclosed in document 1.

## Claim 5

Document 3 cited in the international search report discloses a wholly aromatic polyimide wherein a dianhydride of a biphenyl tetracarbonic acid was used as the non-thermoplastic resin (paragraphs [0015] and [0019]).

Therefore, it would have been easy for a person skilled in the art to conceive of substituting the non-thermoplastic resin in the invention that is disclosed in document 1 with the non-thermoplastic resin in the

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invention that is disclosed in document 3.

Claim 10

Document 4 cited in the international search report discloses the technical feature of mixing a magnetic powder with resin particles that have a particle diameter of 3 µm, pressure molding the resulting mixture and then subjecting the resulting compact to a heat treatment (page 5, lines 22 to 23).

Therefore, it would have been easy for a person skilled in the art to conceive of configuring so that the particle diameters of the organic compound particles in the invention that is disclosed in document 1 are the same size as the resin particles in the invention that is disclosed in document 4.

Claim 11

Document 5 cited in the international search report discloses the technical feature of pressure molding the magnetic particles while in an atmosphere of an inert gas (paragraph [0029]).

Therefore, it would have been easy for a person skilled in the art to conceive of employing the technical feature that is disclosed in document 5 in the invention that is disclosed in document 1.